

**Observer Program
NOAA Fisheries Panama City Laboratory**

INTRODUCTION AND FIELD INSTRUCTIONS

I. Shark Gillnet Fishery Background:

The Atlantic shark gillnet fishery is managed under the Atlantic Highly Migratory Species Fishery Management Plan (HMS-FMP) and under the authority of the Magnuson Fishery Conservation and Management Act (Magnuson Act). The HMS-FMP was prepared by the National Marine Fisheries Service (NMFS) with jurisdiction over the U.S. coastal waters of the Northeast Atlantic, the Gulf of Mexico, and the Caribbean Sea out to the Exclusive Economic Zone (EEZ). This gear type is also regulated by the Atlantic Large Whale Take Reduction Plan (ALWTRP) which expresses concerns for the Right Whale and other large whales that migrate close to shore along the east coast of Florida and Georgia between November 15 and March 31 of each year (a.k.a., Right Whale Calving Season). In conjunction with the HMS-FMP, biological opinions are initiated each year through the Endangered Species Act (ESA) over the concerns that this gear type encounters marine turtles. All regulatory documents call for 100% observer coverage during the critical right whale calving season; however this may soon change.

Modifications over the years were made to the various Fishery Management Plans regulating Atlantic swordfish, sharks, billfish, and tunas which finally culminated into the comprehensive HMS-FMP published in May 28, 1999 with those regulations becoming effected on July 1, 1999. Specific rules are summarized below:

- 1) redefine the swordfish management units to include the North Atlantic Ocean above 5 degrees N latitude and portions of the South Atlantic;
- 2) continue the minimum size limit for swordfish of greater than or equal to 29 inches (73 cm) carcass length or 33 pounds(15 kg) dressed weight;
- 3) establish an annual total allowable catch by gear and pelagic species;
- 4) divide the annual shark directed-fishery quota into three trimesters, January 1 through April 15, July 1 through August 31, and September 1 through December 31;
- 5) specify bycatch limits that apply after a quota closure for purse seine, harpoon, longline, or gillnet;
- 6) require vessel operators to carry NMFS-approved observers on permitted vessels upon the request of NMFS;**
- 7) specify minimum size limits for billfish species for the recreational fishery and prohibit the landing of billfish by commercial fishers;

- 8) establish the categories of small coastal, large coastal, and pelagic shark species with landing prohibitions on selected shark species;
- 9) establish area closures for bluefin tuna and swordfish permits;
- 10) make other changes to facilitate the management of the Atlantic pelagic species.

Hence, the continuation of the Shark Gillnet Observer Program. This program will be directed by the SE Fisheries Science Center, and will place NMFS /contract observers aboard U.S. gillnet vessels that currently hold shark permits. Vessel owners and operators that have a current limited access permit for sharks and fish with a gillnet gear type are required 100% observer coverage during the right whale calving season while fishing assuming funding availability. Outside the right whale calving season (1 Apr-14 Nov), an interim final rule published in March 2001 (March 30, 2001; 66 FR 17370) to the Fishery Management Plan for Highly Migratory Species (NMFS, 1999) established a level of observer coverage equal to that which would attain a sample size needed to provide estimates of sea turtle or marine mammal interactions with an expected coefficient of variation of 0.3.

These boats will be notified as to their selection in writing by the HMS Division staff and are required to respond initially in writing with requested information and then to contact the coordinator by phone or fax 2-3 working days prior to all departures during the selection period or until a trip is observed.

II. Shark Drift Gillnet Fishery Observer Program Objectives:

- A. Provide trained observer personnel to meet coverage of U.S. Commercial shark gillnet fleet.
- B. Obtain target and bycatch numbers on fish and protected mammal and turtle species caught in gillnet gear.
- C. Record length measurements on all shark species brought on board, identify discard of finfish species, and collect biological and statistical data on marine mammal and turtle species.
- D. Record detailed gear characteristics of commercial gillnet vessels.

The shark gillnet fishery has two primary seasons of interest. Currently, the ALWTRP calls for 100% observer coverage aboard any drift gillnet and/or striknet vessels directing at shark species during the Right Whale calving season (November 15 to March 31) along specified areas of the Florida and Georgia east coast line. The remainder of the year is spent covering vessels that fish with other types of gillnet. All of this is pending observer program funding availability.

III. Shark Bottom Longline Fishery Background:

The Atlantic bottom longline fleet is managed under the Atlantic Highly Migratory Species Fishery Management Plan (HMS-FMP) and under the authority of the Magnuson Fishery Conservation and Management Act (Magnuson Act). The HMS-FMP was prepared by the National Marine Fisheries Service (NMFS) with jurisdiction over the U.S. coastal waters of the Northeast Atlantic, the Gulf of Mexico, and the Caribbean Sea out to the Exclusive Economic Zone (EEZ). The Fishery Conservation Amendments of 1990 (FCA) Public Law 101-627 transferred management authority over the Atlantic swordfish fishery to the Secretary of Commerce. The Secretary issued emergency regulations on June 12, 1991, that were consistent with November 1990 recommendation of International Commission for the Conservation of Atlantic Tunas (ICCAT) and were made effective through December 9, 1991.

These regulations were published as a proposed rule on October 23, 1991 (56 FR 54819). Public hearings were held on the proposed rule, and written comments were accepted during a 45-day public comment period ending December 2, 1991.

Modifications over the years were made to the various Fishery Management Plans regulating Atlantic swordfish, sharks, billfish, and tunas which finally culminated into the comprehensive HMS-FMP published in May 28, 1999 with those regulations becoming effected on July 1, 1999. Specific rules are summarized below:

- 1) redefine the swordfish management units to include the North Atlantic Ocean above 5 degrees N latitude and portions of the South Atlantic;
- 2) continue the minimum size limit for swordfish of greater than or equal to 29 inches (73 cm) carcass length or 33 pounds(15 kg) dressed weight;
- 3) establish an annual total allowable catch by gear and pelagic species;
- 4) divide the annual shark directed-fishery quota into three trimesters, January 1 through April 15, July 1 through August 31, and September 1 through December 31;
- 5) specify bycatch limits that apply after a quota closure for purse seine, harpoon, longline, or gillnet;
- 6) require vessel operators to carry NMFS-approved observers on permitted vessels upon the request of NMFS;**
- 7) specify minimum size limits for billfish species for the recreational fishery and prohibit the landing of billfish by commercial fishers;
- 8) establish the categories of small coastal, large coastal, and pelagic shark species with landing prohibitions on selected shark species;
- 9) establish area closures for bluefin tuna and swordfish permits;

- 10) make other changes to facilitate the management of the Atlantic pelagic species.

Hence, the creation of the Shark Bottom Longline Observer Program (SBLOP). This program will be directed by the SE Fisheries Science Center, and will place NMFS contract observers aboard U.S. longline vessels that currently hold shark permits. Vessel owners and operators that have a current limited access permit for sharks and fish with a longline gear type are required to carry an observer. These boats will be notified as to their selection in writing by the SEFSC staff and are required to respond initially in writing with requested information and then to contact the coordinator by phone or fax 2-3 working days prior to all departures during the selection period or until a trip is observed.

IV. Shark Bottom Longline Observer Program Objectives:

- A. Provide trained observer personnel to meet a 3.9% coverage of U.S. Commercial shark longline fleet.
- B. Obtain target and bycatch numbers on fish and protected mammal and turtle species caught in longline gear.
- C. Record length measurements on all shark species brought on board, identify discard of finfish species, and collect biological and statistical data on marine mammal and turtle species.
- D. Record detailed gear characteristics of commercial longline vessels.

V. Observer Duties

Due to liability and safety considerations, **observers will not participate as deck hands during the fishing operations or stand watch.** Observers are encouraged to assist in cleanup duties and lend a hand once operations are secured. Observers will abide by routines aboard the vessel and adopt the habits of crew in use of living space, preparation and consumption of meals, storage of personal gear, personal hygiene and chores.

Observers are provided with the current fisheries regulations. However, **interpretation of these materials will be left to the captain or crew.** Observers will provide access to data collected when requested by any NMFS, Coast Guard or state official. In the event data is provided to an official, the observer will contact the coordinator and document all materials turned over to the officer.

PROVIDE COPIES OF DATA RATHER THAN ORIGINALS.

An additional day will be taken once landing and weigh out is finished to review data forms for completeness, make copies of all data and then arrange for shipping of data and samples. If logistics allow, observers may come through Panama City to debrief with program staff. Otherwise data will be sent FEDEX **Priority Overnight** to the Panama City lab. Once the data is received, coordinators will contact the observer by phone to arrange a time for a debriefing.

During debriefing, observers are provided feedback on their data collection, data questions are resolved, information is shared and field supplies are replenished.

YOUR TRIP IS NOT OVER UNTIL YOU COMPLETE A DEBRIEFING WITH YOUR COORDINATOR.

The observer's primary responsibility is to identify and record all animals caught during fishing operations and take required measurements and samples. Work will begin when the haul begins and work terminates when work-up of animals is completed and gear is stowed (generally 8-12 hrs a day). Between haul-backs the observer should rest, eat or sleep. Other duties include recording tagging information and obtaining a copy of the weigh-out sheet from the dealer or captain.

A. Field Diary

The field diary should be used to document events or actions that occur during a single deployment and backup data information. Your field diary is an important data element. Include a copy of your field diary for each trip submitted. The field diary can be used for multiple trips, however to ensure individual vessel confidentiality, **observers will remove pages from a completed trip prior to another deployment.** Types of observations include: daily weather and position entries recorded at the same time each day; changes in the gear configuration, travel record and any comments/questions about procedures that may improve data collection. Include set and haulback times and positions and a daily catch summary. Maintain a photo log, radio/cellphone communications and boat or marine mammal sightings.

B. Field Identification

Reference materials are provided to the observer to assist in making accurate identifications of species:

Guide to Sharks, Tunas & Billfishes of the U.S. Atlantic & Gulf of Mexico Whales,
Dolphins, and Porpoises
Peterson Atlantic Coast Fishes

Photographs will be taken to help staff identify an unknown animal, to document a rare fish, to verify species identification, and document gear involvement of all incidental take (turtles, mammals, sea birds).

If a fish is dead and manageable, an observer should request that it be brought on board to get an actual measurement, biological sample or a better photo opportunity. Unless working on deck is unsafe, observers will record the required measurements for all species brought aboard. The observer will record an estimated length for all released or discarded animals, to the nearest foot and convert to cm on the data form. If species identity is in question, record the known species name (e.g. BIL), take enough photos (at least 2) showing prominent features.

DO NOT HANDLE LIVE SHARKS AND RAYS

Photos of the boat, gear and fishing operations can be useful. However these photos will not be taken without with the captain's permission and are only be used during training or briefing sessions. Photos are to be turned over to the observer coordinator after a trip. All photos are property of the observer program and are to be deleted after the trip.

C. Biological Sampling

All observers are required to collect biological samples that may include shark vertebrae, gonads, DNA fin clips, and stomachs to maintain our shark life history study or other special sampling requests.

Sampling will not be done unless proper equipment, training, protocols and permits have been provided. Whole specimens may be requested to be brought back to the dock but should only be shipped with the coordinators' authorization.

REVIEW BIOLOGICAL SAMPLING REQUIREMENTS EACH SEASON FOR CURRENT SAMPLING PROTOCOLS AND SAMPLE REQUESTS.

A sample label will be included with all biological samples collected. Use sharpie pens provided to fill out the labels as pencil or ink will fade or smear.

Whole fish specimens or fish parts should be placed in multiple plastic bags and stored on ice or kept frozen. If multiple parts are collected for a single specimen, each part should be placed into a separate plastic bag and labeled with the trip #, date, specimen number, species abbreviation, and tissue type (ex. vertebrae, gonad) for each fish sampled. Combine the smaller bags and triple bag in larger plastic bags.

D. Tagging:

1. Tag Recaptures:

For a tag recapture animal, special biological sampling is required. All tag recapture fish are important. However, never sacrifice a live fish to recover a tag. If a tagged animal is brought on board and will be kept, record the tag number, species, length, sex, location of capture, and date. If it is a shark, a vertebrae sample is imperative since the animal may have been marked for age and growth studies.

2. Tag Deployment:

If a healthy shark is captured and will be released, place a shark tag into the animal (as demonstrated in training) and record the species, estimated length, sex, location of release, and date on the data sheet. **BE SURE TO RECORD THE TAG NUMBER ONCE DEPLOYED.**

E. Incidental Take:

A priority for the observer is the reporting of and the collection of marine mammal or turtle biological material.

Any live marine turtle is to be released from entrapment **by the crew** as quickly and with as little gear associated with the animal as possible. Any comatose or dead marine turtle encountered, the observer should request the captain to bring the animal aboard and follow procedures explained during the training sessions (resuscitation, measurements, tagging, etc).

Any live marine mammal is to be released from net entrapment as quickly and with as little gear associated with the animal as possible, with the exception of large whale mammals (right whale, sperm whale, or humpback whale). For dead marine mammal and especially for large whales, contact with the Emergency Stranding (ES) coordinator is critical. The ES coordinator will instruct the captain and crew on what procedures to follow, if possible. The observer is to assist the crew in any way possible to accomplish the ES coordinator's request.

VI. Datasheets and Data collection:

A. SDFGN Data Forms

1) Haul Log:

Information pertinent to the fishing of gillnet gear are recorded. This will include but not limited to set and haulback times and positions, water temp, bottom depth, target species, and counts of fish landed or discarded. Record any incidental takes of protected species (mammals, seabirds, and turtles) and biological sampling when possible.

2) Catch Summary:

This will provide the overall information on each fish species caught by the gillnet gear. Information includes: fish identification to species, alive/dead in net, and kept or released.

3) Weight Worksheet:

This will provide information on each fish species caught by the gillnet gear by size range. It also includes information on sex, morphometric measurements, and tag information for shark species.

4) VMS Log:

This log is only filled out during Right Whale Calving Season (Nov. 15-Mar. 31). It will provide the latitude and longitude and status of the fishing vessel every hour from the time it leaves port.

**PHOTOS ARE A PRIORITY FOR ALL INCIDENTAL TAKE TO
CONFIRM SPECIES IDENTIFICATION AND GEAR INVOLVEMENT.**

5) Incidental Take Log:

This form is only completed when a marine mammal or sea bird is hooked or entangled in the longline gear (see Incidental Take Instructions for more details)

6) Sea Turtle Life History Form:

This form is completed for each turtle involved in the gear. Complete as much information as possible given the equipment you have available and whether the captain brings the animal on board. If the animal appears to be comatose, a request should be made to bring it aboard, but the decision remains with the captain. Refer to SEFSC Sea Turtle Observer Manual for protocols, and apply them to your specific situation. All observers will receive turtle training and carry required permits in the field. At a minimum, turtles are to be photographed to verify identification and gear involvement (e.g. how hooked and/or how entangled).

B. SBLOP Data Forms:

1) Gear Log:

A detailed description of the gear being used (see Gear Log Instructions for more details)

2) Haul Log:

Information relating to the gear deployment/set and retrieval/haul are recorded (see Haul Log Instructions for more details)

3) Animal Log:

Information on each species that is observed as caught on the longline (see Animal Log Instructions for more details)

4) Haul Catch Summary Log:

A summary of all species caught with total numbers of catch for each haul (see Haul Catch Summary Log Instructions for more details)

5) Catch Summary Form (different from Haul Catch Summary Log):

The Bottom Logbook Catch Summary Form is not an observer program data form. However it is mandatory for the owner/operator to submit them in compliance with permit requirements. Please assist the skipper in completing this form as accurately as possible. Use the Catch Summary sheets we provide to total daily catch numbers. Record summarized catch (both kept and discards) in your field diary and give original catch summary sheets to the captain.

6) Trip Summary Form:

To be completed after trip and sent in with data as the cover sheet. Weigh out forms should also be sent in with the data.

ALL INCIDENTAL TAKE (TURTLES, MAMMALS AND SEA BIRDS) ARE RECORDED ON BOTH THE ANIMAL LOG AND ONE ADDITIONAL FORM DESCRIBED BELOW.

PHOTOS ARE A PRIORITY FOR ALL INCIDENTAL TAKE TO CONFIRM SPECIES IDENTIFICATION AND GEAR INVOLVEMENT.

7) Incidental Take Log:

This form is only completed when a marine mammal or sea bird is hooked or entangled in the longline gear (see Incidental Take Instructions for more details)

8) Sea Turtle Life History Form:

This form is completed for each turtle involved in the gear. Complete as much information as possible given the equipment you have available and whether the captain brings the animal on board. If the animal appears to be comatose, a request should be made to bring it aboard, but the decision remains with the captain. Refer to SEFSC Sea Turtle Observer Manual for protocols, and apply them to your specific situation. All observers will receive turtle training and carry required permits in the field. At a minimum, turtles are to be photographed to verify identification and gear involvement (e.g. how hooked and/or how entangled).

VII. Safety:

Observers will carry an immersion suit with attached signals (strobe, whistle, signal mirror and PLB 406 EPIRB) during each deployment.

In addition, observers are provided with an individual first aid kit, paraffin wax for zipper maintenance, and a Personal Marker Light (PML) to attach to their rain jacket or a Personal Floatation Device (PFD).

Observers will complete a Pre-Trip Safety Check form with the owner/operator or designated crew member.

IT IS THE POLICY OF THIS PROGRAM THAT THE OBSERVER HAS THE RIGHT TO REFUSE ANY TRIP FOR DOCUMENTED SAFETY OR HEALTH CONCERNS.

Documentation **must** include a Pre-Trip Safety Check, and a written statement by the observer.

Observers will obey safe working practices aboard the vessel and avoid actions that would expose themselves or the vessel crew to undue risk.

11/17/2006

In an emergency situation at sea, the authority/responsibility remains with the captain. He should contact the Coast Guard and they will determine the course of action. However, in any shipboard emergency, the observer will contact the coordinator to report that you have an emergency and update your status.

In order to increase program risk awareness and provide better training to all observers we are asking observers to report all injuries as well as close calls to the coordinator during debriefing. This information will not be vessel based, rather summarized by hazard type and/or injury type. If medical treatment is required observers must also report to his/her employer and an incident report form will need to be filled out. This should also be documented best in a field diary entry. Include the date, time, and details on type of injury, contributing factors and treatment (e.g. slipped on back deck, hydraulic leak, bruised knee, applied ice day 1, no further treatment required).

VIII. COMMUNICATIONS.

Once an observer is deployed he/she will update Panama City once each day by land-line until the boat leaves the dock.

At sea, observers will make contact with the Panama City Lab once a week, by cell phone or radio to report their work status and ships' position.

Upon landing, observers will contact the office by land-line, discuss post trip details and determine if an observer should remain on site for a debriefing. Observers are provided with contact names and numbers to assist with personal travel or shipping needs.

SDFGN COORDINATOR - Dana Bethea

Office: 850-234-6541 ext 239
Cell: 850-624-2747
Email: Dana.Bethea@noaa.gov

SBLOP COORDINATOR - Lori Hale

Office: 850-234-6541 ext 250
Cell: 850-774-2624
Home: 850-215-9898
Email: Loraine.Hale@noaa.gov

SBLOP COORDINATOR - Ivy Baremore

Office: 850-234-6541 ext 249
Cell: 352-328-8750
Email: Ivy.Baremore@noaa.gov

ADMINISTRATOR - John Carlson

Office: 850-234-6541 ext 221
Cell: 850-624-9031
Email: John.Carlson@noaa.gov

If Observer is projected to be offshore at the end of a pay period provide hour estimations to staff. If estimations are not given, staff will turn in estimations for you.

IX. Shipping Procedures:

All data and/or samples will be shipped **FEDEX Priority Overnight** (Box 4a on the air bill). If you land on a weekend or holiday you may have to purchase a cooler and ice to keep samples cool until you can ship, or the program can ship you a cooler. You can arrange for pickup service (1-800-238-5355) or take to the nearest FEDEX office.

**ALWAYS RECORD THE TRACKING NUMBER PRIOR TO SHIPPING.
NEVER SHIP DATA, PRESERVED SAMPLES (e.g., biopsy) OR CAMERAS WITH BIOLOGICAL SAMPLES.**

Packaging is the responsibility of the observer and might require some creativity. The major concern is to minimize smell and leakage throughout transport. Use coated boxes with insulated liners when possible. Dry Ice is better than real ice. Triple bag samples with plastic bags and fill any air spaces with insulation (newspaper is good). If you use a Styrofoam container or FEDEX Specimen Paks, put inside a cardboard box and label appropriately to be accepted by FEDEX.

Shipping Address:

**ATTN: Lori Hale or Dana Bethea or Ivy Baremore
Southeast Fisheries Science Center
3500 Delwood Beach Rd
Panama City, FL 32408**

FEDEX # 15077614-7

X. Equipment Checklist:

The observer will be provided with all field equipment necessary to meet the needs of the project. An equipment checklist will be signed by the observer upon checkout and then by the coordinator upon check in.

The following additional personal items are suggested:

Sunglasses

Sunscreen

Hat

Personal toiletries including a towel

Deck shoes (close-toed)

Candy, books, ipod etc.

Sea sickness medicine

Bedding (sleeping bag, bed pad)

Clothing appropriate for weather conditions